

DRAFT VERSION

IowaAccess Project Plan

Project 8: Geographic Information Systems (GIS) Support

Project Leads: Marty Adkins and David Plazak

Mission Statement:

Construct the infrastructure needed for all levels of government, the educational sector, and the private sector to take full advantage of geographic information systems and related technologies.

Need Statement:

Geographic information system (GIS) technology is a powerful tool for analysis and graphical display of data based on a combination of digital maps and tabular databases. It is extensively utilized for many purposes, ranging from law enforcement to natural resources management. The ultimate benefits of GIS use to citizens is illustrated by the case of New York City, which decreased street crime rates partly through the use of GIS-based crime mapping. The costs of GIS hardware and software have decreased to the point that barriers to use are now mainly in the areas of data development and training. This project is aimed at building networks and partnerships that will overcome those barriers.

Problem Statement:

GIS is a very powerful enabling technology-it allows government, business, and education to do their jobs better. However, even though GIS technology is very powerful and increasingly accessible to many organizations, lack of awareness and training hinders its use. So does the large cost of developing GIS databases and map layers. For these reasons, small government agencies and small businesses have a difficult time using the technology. GIS could be a very powerful education tool, but its use is limited at this time.

Client Population:

- State, county, and city government agencies.
- Regional planning organizations.
- Federal agencies with offices in Iowa.
- Educational institutions and students.
- Private companies, including utilities and others.
- Consultants.
- Citizens, either as GIS users or beneficiaries of improved public services.

Project Scope:

Purpose: This project will design and implement a Geospatial Data Infrastructure for Iowa, including a formalized coordination body, a coordination staff, an enhanced data clearinghouse, and a statewide GIS training and education effort.

Project Parameters: Develop an overall support network through which government agencies, educational institutions, and private companies can initiate and leverage their GIS-related efforts.

This project will develop a more effective GIS coordination effort for Iowa that involves all relevant client groups.

The project will enhance an existing on-line catalogue of GIS data resources for Iowa.

The project will develop an effective program for developing trained GIS experts throughout Iowa who can train others.

The project will take full advantage of Internet technology to achieve its goals.

Solution Approach:

Iowa has had an informal GIS coordination effort for several years through the Iowa Geographic Information Council (IGIC). This project builds upon existing GIS expertise, data, and coordination efforts in Iowa and takes them to a new level of effectiveness.

Steps in the Process:

- Evaluate options for hosting the GIS coordinator, including a state agency or a new non-profit organization.
- Determine a host for the GIS coordination staff.
- Develop a job description for the GIS coordinator.
- Develop an Executive Order formalizing the Iowa Geographic Information Council. (This may ultimately be followed by legislation).
- Develop and distribute an RFP for hosting the enhanced GIS clearinghouse.
- Select a host for the GIS clearinghouse and proceed with development.
- Secure adequate funding to support the coordinator and clearinghouse.
- Identify potential training and education sites and partners throughout Iowa.
- Develop and issue an RFP to software and training vendors for a "train the GIS trainers" effort.
- Implement an effective "train the trainers" plan so that many more people in Iowa are trained in the use of GIS.

Resources Needed to Proceed:

- An agency to act as host for the GIS coordination staff.
- An executive order or legislation to establish a formalized GIS coordinating body.
- An agency to maintain the enhanced GIS clearinghouse.
- A GIS vendor or set of vendors to provide certified GIS training so Iowa can develop a training network.
- Regional training partners with adequate sites and facilities to hold regional meetings.
- Educational materials illustrating the potential benefits of GIS technology.

Timeline:

This project is underway. The RFP for the clearinghouse host has been issued and proposals are due by July 1, 1997. The coordinator must be on-board by the end of Summer 1997. The coordination body should be officially in place by Fall 1997. The enhanced clearinghouse and education network should be operational by Spring 1998. The "train the GIS trainers" effort should be completed by Fall 1998. An evaluation should be completed for the entire project by Fall 1998.

Project Goals

- Have a formalized GIS coordination mechanism in Iowa that is widely known about and effective.
- Hire an expert statewide GIS coordinator who can act as staff for the coordination body and act as an effective GIS champion.
- Enhance the existing Iowa GIS data clearinghouse to make it much richer in terms of datasets identified and in terms of functionality offered (jobs exchange, links to expertise, etc.).
- Work through government and trade associations to promote existing GIS standards, such as metadata standards.

- Gain Federal (FGDC) recognition as a state cooperator organization and FGDC recognition of the clearinghouse.
- Develop a GIS "train the trainer" program.
- Involve citizens and potential GIS users in the process through a series of regional meetings.
- Find or develop educational materials that illustrate the benefits of GIS to potential users and citizens.

Evaluation Criteria

- The Iowa Geographic Information Council is formalized and officially recognized by the state government.
- The coordinator is employed and is actively promoting GIS to a variety of audiences.
- Number of public agencies and private companies aware of GIS technology. (Requires a brief survey).
- Number of "hits" on IGIC and clearinghouse sites before and after project.
- Number of certified GIS trainers in Iowa before and after the project.
- Number of individuals completing GIS training courses sponsored through the project.
- Number of attendees at regional information meetings and their evaluations of those meetings.

Privacy and Security:

The concept of this project is to provide open access to GIS data and expertise. Individual data developers are responsible for privacy and security issues associated with data.

Approaches to Public Education:

The Iowa Geographic Information Council already publishes a quarterly newsletter, which has a broad distribution. It also operates a Web Site and an Internet mailing list. IGIC hold an annual statewide GIS conference, which will be held this year at the University of Northern Iowa in Cedar Falls. Attendance is usually 200-300. This project will use and build on those communication mechanisms. It will also use a series of regional informational meetings on the benefits and potential applications of GIS.

Project Benefits:

- GIS development will be better coordinated in Iowa, which will allow development, data, and training resources to be leveraged.
- There is easier and quicker adoption of GIS technology by Federal, state, local, education, and private organizations.
- There is more, better quality information available for decision-making and other uses in government, education, and the private sector.
- More GIS partnerships are in place. There is better integration of data among agencies at various levels of government. More data are shared, reducing the cost of GIS development.
- More GIS expertise is shared, reducing the cost of GIS development.
- There is greater recognition of the value of data to government and business decision-making.
- More Iowa agencies and businesses will become aware of GIS technology and its potential uses.
- GIS data and expertise will be widely accessible via the Internet.

Means of Sustainability:

This project must rely on effective public/private partnerships for continuation. Possible sources of future funding include Federal grants (Federal Geographic Data Commission), state appropriations, agency contributions, and proceeds from value-added activities (conferences, workshops, data sets).